

SWBAT: communicate an original experiment about waves using a Vee chart

Jan 4-7:20 AM

Welcome!!!

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SECA Physics
Monday-Thursday 20-23 April 2015



Opening Question:

Who might care about this kind of experiment?

~~LESLIE
TEACHERS
SCIENTIST~~

Centering


Where can you find examples of Vee Charts?
What kind of experiments could we do about sound,
waves, or frequency?

Sep 7-7:04 AM

Project Vee Chart

- Part 1: Write down your question
How DOES _____ AFFECT WAVE SPEED FOR A STRAW WAVE MACHINE?
- Part 2: Concept Map
I THINK AS... BECAUSE... I NOTICED...
- Part 3: Methods and Materials
- Part 4: Data
- MATERIALS - STEP BY STEP - PICTURE LABELED
- TABLE W/ UNITS - MORE DATA \Rightarrow BETTER!
- Part 5: Graph

RULES
 - LABELS
 - UNITS


- Part 6: Results
- ODD DATA EXPLAINED - DESCRIPTION - LINE? - UP/DN/FLAT? - CURVE? - REACH LIMIT
- Part 7: Knowledge Claim
- ANSWER TO Q - DATA / #S TO SUPPORT - BETTER NEXT TIME?
- Part 8: Value Claim
- WHO WOULD CARE - WHY? X2
- ENOUGH TO PAY!
- Part 9: Glossary
 - \hookrightarrow BLUE CONCEPT SHEET?
 - \hookrightarrow FORCE? MASS?

Jan 26-7:43 AM

Projects: V-Chart ideas **GROUPS: 1-3 PEOPLE**

How does extra mass (staples or paper clips) on the end of the straws affect the wave speed?

How does extra tension (mass hanging from the device) affect the wave speed?

How does length of tube affect the frequency of sound produced when spun?

Or, make me an offer... (Ruben's tube???)

Today:

- Mythbusters
- Catch up
- Make graph?

Tuesday:

- BUILD WAVE MACHINE
- COLLECT & RECORD DATA X3 & AVG
- TEAM MEMBER NOTING STEPS OF PROCEDURE

Monday:

- ① FOCUS QUESTION (PICK ONE)
- ② CONCEPT MAP: "I THINK... BECAUSE... I'VE NOTICED..."
- ③ - LIST OF MATERIALS
- STEP-BY-STEP PROCEDURE
- DIAGRAM WITH LABELS

Frequency means: How many per unit time

Period means: How much time for 1

Amplitude means: how far from middle

Apr 12-7:15 AM

1-step per Post-It:

- 1) BUILD THE STRAW WAVE MACHINE & HANG IT
- 2) WEIGH STRAW MACHINE w/ 1 WASHER
- 3) TIME A PULSE: START TIMER WHEN FLICKING BOTTOM STRAW & STOP WHEN PULSE RETURNS TO BOTTOM
- 4) REPEAT 3 TIMES AND AVERAGE
RECORD RESULTS
- 5) -ADD A PAPER CLIP TO EACH STRAW
-ADD A WASHER TO THE BOTTOM
- 6) REPEAT STEPS...
AT LEAST 5 TIMES

Apr 20-12:30 PM

Mythbusters Day 3: Singer break glass?

- 1) WHAT'S DIFFERENT ABOUT MEYER'S THIRD TRY?
- 2) CAN AN AMATEUR BREAK THE GLASS WITH A SPEAKER?
- 3) COULD AN UN-AIDED SINGER BREAK THE GLASS?

Apr 24-10:12 AM